ENHANCED CINEMA SYSTEM

BACKGROUND OF THE INVENTION

This invention relates to the exhibition of movies in public movie theaters/cinemas, and more particularly to an enhanced cinema system with special features that heighten the entertainment, theatrical and artistic experience of viewers. The enhanced cinema system additionally may be used for advertisement within movie theaters.

DESCRIPTION OF THE PRIOR ART

Movie systems can be categorized in the areas of: projection, sound and screen systems/apparatus, and movie theater auditorium designs. Prior art in these various areas include three dimensional (3-D) movies, cinerama, panorama, holographic movie projection and optical systems, experience theater, audience seated on moving platforms, scent-emitting systems, audience reaction measuring devices, motion picture projection and control systems, daylight and rear screen projection systems and enhanced sound systems. 3-D, cinerama and panorama systems require special camera equipment and processes for filming a 3-D movie or cinerama or panorama movie, which increases movie production costs and investment. Special theaters and projection systems are required for viewing cinerama or panorama movies, and special viewing glasses are required for watching 3-D movies.

In the prior art, methods and apparatus have been proposed for interactively controlling television by a viewer, as disclosed in U.S. Pat. No. 4,695,953 issued to Blair et al. and U.S. Pat. No. 4,711,953 issued to Blair et al. These prior art patents teach an animation method which enables rapid and repeated switching of multiple tracks of different camera originated animation of the same character during continuous action in a scene. An embodiment of the disclosed patents shows how a player can swing a racket before a screen or television monitor, hit a midair projected image of a perspective ball animated action, return the ball back to an animated character opponent, and play a simulated game.

Other prior art systems include video games which enable players to control video images via buttons, knobs, and control sticks or wheels. All such prior art systems involve interaction with video game or television displays. To date, there have been no disclosure of methods or apparatus for interacting with a movie or cinema, so as to create visual special effects, apart from the movie.

U.S. Pat. No. 1,281,720, issued to Tully, discloses a method of producing a fog, haze or smoke, across a stage, by illuminating a screen stretched in front of the stage. This patent does not teach or suggest using actual fog-like gas to generate the fog, haze or smoke.

None of the prior art systems teach or suggest providing a cinema viewing audience a unique visual experience based on special external effects to a movie film or advertisement.

OBJECTS AND SUMMARY OF THE INVENTION

An object of the present invention is to provide special effects and other new technologies to movie theaters.

Another object of the present invention is to enhance the pleasure of viewing movies in theaters and thereby giving audiences added entertainment value when viewing movies.

A further object of the invention is to provide an interactive system of movie and special effects.

A still further object of the invention is to provide an enhanced cinema system with an interactive effect of a laser light beam of theatrical quality and a display of fog-like gas in front of the movie screen.

An additional object of the invention is to provide an enhanced cinema system having gases rolling across and in front of a movie screen.

An additional object of the invention is to provide an enhanced cinema system with an interactive effect between three aspects of the system: 1) laser light beams; 2) a display of gases rolling in front of the screen; and, 3) banks of lights on the walls of the theater auditorium. All of these in turn could interact with the movie being projected.

Another object of the present invention is to provide an educational and learning method by which a movie viewing audience may absorb more of the artistic subtleties, messages or meanings of the film being viewed.

An additional object of the invention is to provide an enhanced cinema experience for the full spectrum of the movie public, from the serious minded viewer looking for message, meaning or insights to the viewer desiring entertainment, thrills and novel experiences.

According to the present invention, as embodied and broadly described herein, an enhanced cinema system is provided that interacts with a conventional movie system comprising a screen, sound system, means for generating a fog-like gas, movie means, control means, and a screen-fogging apparatus having a plurality of retractable shafts, means for spinning the shafts, and means for advancing the shafts across the screen. The means for generating a fog-like gas may be embodied as a fog generator. The plurality of retractable shafts have slits, are mounted in front of the movie screen and are coupled to the fog-like gas generating means. The means for spinning the shafts may be embodied as a motor and chain drive connected to the shafts. The spinning means are coupled to the plurality of shafts for spinning the plurality of shafts. The fog-like gas flows from the generating means through the plurality of shafts and escapes from the slits of the plurality of shafts. The movie means may be embodied as a movie projector or any other apparatus capable of projecting a movie onto a movie screen. The movie means also is responsive to a movie film for generating an interact signal and a lighting signal. A laser or other means for generating a beam of light is coupled to the movie means and control means, and is responsive to the interact signal from either the movie means or control means for generating a beam of light. The beam of light interacts with the movie, screen-fogging apparatus, or programmable lighting panels.

The enhanced cinema system further includes programmable lighting panels having a plurality of lights. The programmable lighting panels are mounted on the side walls of the cinema. Control means is coupled to the programmable lighting panels, and movie means. The control means may be embodied as a computer or other processor apparatus. In response to the lighting signal generated by either the movie means or by the control means, the control means activates the lights in the programmable lighting panels before, during or after the movie. The invention can further include